Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.961
72C82
4p2

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

DEPT. OF AGRICULTURE

In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING JUNE 30, 1945
(Tenth Cotton Insect Survey Report for 1945)

The boll weevil situation is much more critical than it was on June 30 last year when the hot, dry weather over most of the belt had already checked a threatening infestation. A heavier weevil survival occurred and cotton is later this year than in 1944. Except in limited areas weather conditions have not as yet prevented a normal increase in weevils and July will be the critical weevil month of 1945. In all states where they occur weevils are present in sufficient numbers to cause serious damage except possibly North Carolina, Virginia and Tennessee, if the weather during July is favorable. An ample supply of calcium arsenate is available but with the increasing transportation difficulties, growers should have stocks on their farms so that control can begin without delay when field examinations show it is needed.

Growers should be on the lookout for bollworm infestations especially in Texas, but there is danger from these insects in less degree only in all of the states.

No additional reports of cotton leafworm during the past week.

Grasshoppers should be controlled by poison bait where they are abundant as in some cotton fields of Texas and Oklahoma.

In the irrigated cotton fields of the Southwest the prospects indicate more injurious insects than in 1944.

BOLL WEEVIL

TEXAS: Droughty conditions still prevailed in northwestern Texas with very little additional acreage planted as the deadline for planting was reached. Hot, dry winds on the rolling plains caused poor stands on considerable acreage and spotted total losses. Cotton continued opening prematurely due to drought in extreme southern Texas and harvesting was active. Cotton growth was satisfactory in coastal counties but weevil damage increased. Favorable conditions for cotton was limited largely to eastern, central and part of north central counties.

Square infestation in 453 fields in 54 counties averaged 40.4% as compared to 37% last week and 33% the previous week. Only 1% of the fields were not infested; 14% had less than 10% infestation; 27% ranged between 11 and 25% infestation; 26% ranged between 26 and 50% infestation; and in 32% the infestation was above 50% punctured squares. Many fields in the eastern, southeastern, central, and north central counties need weevil control, but insecticides were being used in only 20 of the 453 fields examined this week.

Plant examinations in 161 fields in 23 north central and northern Texas counties averaged 105 weevils per acre.

OKLAHOMA: Spotted rains occurred during the week but most fields are drying out and cotton made good progress following recent heavy rains. Square infestation records will begin next week. Weevils are very numerous on plants in central and southeastern counties and the extension entomologist is recommending early control of overwintered weevils.

(Over)

Plant examinations in 239 fields in 24 counties averaged 195 weevils per acre or an increase of 45 per acre from last week.

LOUISIANA: Moderate temperatures with scattered showers were favorable for weevil development. Dusting is in progress in central part of state and sale of calcium arsenate and calcium arsenate-nicotine mixtures has started in north central parishes. No shortages of calcium arsenate reported but supply of nicotine is limited.

Square infestation in 395 fields examined averaged 16% as compared to 8% last week. No infestation was found in 16% of the fields; between 1 and 10% in 45% of the fields; between 11 and 25% in 16% of the fields; between 26 and 50% in 14% of the fields; and more than 50% infestation in 9% of the fields. The infestation in 7 southwestern parishes averaged 30%; in 8 north central parishes 25%; and in 9 central parishes 24%.

ARKANSAS: Hot, dry weather prevailed in the southeastern Delta counties. Square examinations in 110 fields in the southern third of state averaged 5% infestation. The southeastern counties averaged 4% punctured squares, and 108 weevils per acre on small plants; the south central counties 15% punctured squares; and the southwestern counties 2% punctured squares.

MISSISSIPPI: No boll weevils were found in 117 of the 243 fields examined in 38 counties. The 126 infested fields included 110 of 189 fields that had reached the squaring stage and 16 of the 54 fields where cotton was too young for squaring. The average square infestation in all of the 189 fields was 9.9% but the average of the 110 fields where punctured squares were found was 15%. Weevils were found at the rate of 165 per acre in the 16 fields of seedling cotton.

The highest infestations were found in Warren, Clarke, Yazoo, Lauderdale and Hinds Counties in the central and in Chickasaw and Panola Counties in the north central section of the state.

Delta cotton made good growth and square shedding decreased. Excellent progress was made in cleaning as fields became dry enough for cultivation. Weevils were found in 73 of the 168 Delta fields examined. The average infestation was 5% but counting only the infested fields the average was 14% punctured squares. Plant examinations in 76 fields of younger cotton averaged 125 weevils per acre. Infestations above 25% were noted in 10 fields in the southern Delta counties but the infestations were light in the northern counties.

GEORGIA: Weevils are numerous enough to need dusting in many fields in southern Georgia. Cotton is just beginning to square in the northern half of the state but the few fields examined indicate a high infestation is likely to develop.

Counts in 84 fields in 33 counties, mostly in the southern half of the state, averaged 23.5% infested squares. Five percent of the fields were not infested; in 28% of the fields the infestations ranged from 1 to 10%; in 43% of the fields from 11 to 25%; and 24% of the fields had above 26% of the squares punctured.

SOUTH CAROLINA: Weather during the week was variable. Rains were plentiful and conditions favorable for weevil development in the northeastern section but other sections of the state were extremely dry with high temperatures and unfavorable for weevils. Cotton in the Piedmont is just beginning to square freely. The collection of 26 overwintering weevils from the 1/5-acre trap plot this week brought the total to 562 through June as compared to 150 weevils from the same plot in 1944, 518 in 1943, 545 in 1942, and 1,115 in 1941. Records were discontinued as first generation weevils are now appearing in nearby fields.

Square examinations in 242 fields in 35 counties showed 240 fields were infested with an average of 18.8% punctured squares. Last week the infestation averaged 13.7%. One percent of the fields was not infested; in 25% of the fields the infestation ranged from 1 to 10%; in 50% of the fields from 10 to 25%; in 20% of the fields from 26 to 50%; and in 4% of the fields above 50% infestation. The heaviest infestations were in the central counties.

Plant examinations in 35 fields of young cotton averaged 250 weevils per acre. Weevils are numerous enough in all counties to cause serious damage if rainy weather and moderate temperatures prevail during July.

NORTH CAROLINA: Scattered blooms are appearing in the south central counties where sufficient moisture and high temperatures caused cotton to make good growth this week.

Examinations in 101 fields in 13 central counties averaged 4.3% punctured squares. No infestation was found in 19% of the fields; between 1 and 10% in 74% of the fields; and above 10% in 7% of the fields. Adult weevils of the first generation should begin to appear next week.

VIRGINIA: Dr. J. M. Grayson, Entomologist of the Experiment Station at Holland reported finding no weevils in two fields and only 2% of the squares punctured in another field in Nansemond County. As June was very hot and dry, and the boll weevil infestations in adjacent North Carolina are low, the indications are that this will be another year of very light boll weevil damage in Virginia.

COTTON FLEA HOPPER

TEXAS: Very little change in flea hopper populations occurred again this week. Recent heavy rains have been beneficial in reducing flea hoppers. Examinations in 607 fields in 67 Texas counties showed an average of 7.7 flea hoppers per 100 terminal buds, the same as last week. No flea hoppers were found in 21% of the fields; less than 10 per 100 terminals in 58% of the fields; and more than 10 per 100 terminals in 21% of the fields. Insecticides were being used in only 3 of the fields examined.

OKLAHOMA: Infestation on cotton continues light, averaging only 2 flea hoppers per 100 terminal buds in 239 fields in 24 counties. No flea hoppers were found in 53% of the fields; less than 10 in 45%; and more than 10 per 100 terminal buds in 2% of the fields surveyed.

OTHER PLANT BUGS

Salt River Valley, Arizona: Stub cotton is fruiting heavily and a good many bolls are appearing on early planted cotton. Insect populations on cotton increased somewhat during the week and has reached the point where control is needed in some fields. Populations on cotton in the Goodyear area averaged 29 insects per 100 net sweeps on stub cotton and 2.8 on plant cotton. Last week the averages were 17 and 1.8, respectively.

(over)

Santa Cruz Valley, Arizona: Insect populations, mostly *Lygus* bugs, ranged from 0 to 8 per 100 net sweeps, which was about the same as last week.

Casa Grande Valley, Arizona: Sweepings ranged from 0 to 15 injurious insects, with an average of 2 per 100 net strokes. Last week the average was 1.

The rapid and tarnished plant bugs were puncturing about as many squares as the boll weevil in some of the Brazos River bottom fields in Brazos and Robertson Counties, Texas. The insects were also collected at the average rate of 13 per 100 net sweeps in some fields in the vicinity of Tallulah, Louisiana, and are partly responsible for the poor fruiting of cotton.

MISCELLANEOUS INSECTS

Grasshoppers are generally distributed over Oklahoma and Texas except the extreme southern counties and continue to cause spotted damage to cotton. Poisoned bait is being used to protect a good many fields and in some cases where the edges of fields were dusted with calcium arsenate the control was poor.

Aphids have decreased in southern Texas but heavy infestations are present in a few scattered fields. No heavy infestations were reported this week from other States.

Prepared July 4, 1945.